The Influence of Service Quality, Financing, and Compliance on *Clinical Pathways* Performance at Medika Dramaga Hospital, Bogor

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ABSTRACT

This study aims to know and analyze the influence of service quality, financing, and compliance on the performance of clinical pathways in Medika Dramaga Hospital Bogor. The samples for primary data taken were 100 JKN patients who were hospitalized with a diagnosis of Tuberculosis, DHF, PEB with SC, Hernia with Herniorrhoea, and BPH with TURP measures. Secondary data were taken from various sources, for variable service quality from the Marketing Unit report, Funding from the recap of data in inpatient billing, and CP compliance from the case manager data recap. Then the data were analyzed using the Partial Least Square method with the Confirmatory Factor Analysis (CFA) system. The results of the study on primary data show CFA reliability factor (0.941) is dominant in the service quality variable. Meanwhile in the secondary data, the service quality variable has a dominant CFA (0.902) compared to the financing variable and clinical pathways adherence to clinical pathways performance. From primary and secondary data the quality of service with 5 factors is the goal of quality service that has been proven to be dominant in influencing the performance of clinical pathways.

Keywords : Clinical Pathways, Costs of Hospitalization , JKN Patients

ABSTRACT

This research aims to determine and analyze the influence of service quality, financing, and compliance on Clinical Pathway performance at Medika Dramaga Hospital, Bogor. The sample for primary data was 100 JKN patients who were hospitalized with a diagnosis of Tuberculosis, DHF, PEB with SC, Hernia with Herniorapy, and BPH with TURP. Secondary data was taken from various sources, for service quality variables from Marketing Unit reports, funding from inpatient billing recap data, and CP compliance from case manager data recaps. Then the data was analyzed using the Partial Least Square method with the Confirmatory Factor Analysis (CFA) system. The results of research on primary data show that the CFA reliability factor (0.941) is dominant in the service quality variable. Meanwhile, in secondary data, the service quality variable has a dominant CFA (0.902) compared to the financing and clinical pathway compliance variables on clinical pathway performance. From primary and secondary data, service quality with 5 factors is the goal of service quality which is proven to dominantly influence the performance of clinical pathways.

Keywords: Clinical Pathways, Inpatient Costs, JKN Patients

INTRODUCTION

Law no. 44 of 2009 concerning Hospitals states that a hospital is a health service institution that provides complete individual health services. Complete health services include preventive, promotive, curative and rehabilitative aspects. Hospitals as health service providers are classified based on the type of service they provide. In providing health services, hospitals must make efforts to improve the quality of public and medical services through accreditation, certification and other processes. Details regarding hospital accreditation are outlined in Minister of Health Regulation No. 34 of 2017 concerning Hospital Accreditation.

The guidelines were created as a reference for hospital managers to improve the capabilities and quality of services in accordance with developments in science and technology, changes in legislation, and community expectations (Ministry of Health of the Republic of Indonesia, 2012). Medika Dramaga Bogor Hospital was accredited by KARS 2012 in 2017 with the title of Intermediate, meaning that it has implemented service guidelines and guidelines according to standards.

The government launched the National Health Insurance program in Indonesia as a form of implementation of Law no. 40 concerning the National Social Security System (SJSN). National Health Insurance (JKN) is part of the SJSN which is implemented using a mandatory social health insurance mechanism *with* the aim of meeting the basic needs of adequate public health, given to everyone who has paid contributions or whose contributions are paid by the government . BPJS Health is the body appointed by law to administer JKN and the prospective financing system is the system adopted for JKN financing .

Hospitals are organizations that are unique compared to other organizations, starting from the characteristics of product services, functions, objectives, funding systems to tax and accounting treatment (Armen and Azwar, 2013). The problem becomes complicated when hospitals that are used to serving general patients with a *fee for service concept* change to serving JKN patients and use a *prospective payment pattern* . An overview of the hospital's current *prospective payment formula* , namely *Tariff - Cost = Profit* means the *Indonesian Case Base Groups* (INA CBGs) tariff as the claim value minus hospital costs is equal to the hospital's profit. JKN *prospective payments* are divided into capitation for first level health facilities and INA CBGs packages for advanced health facilities .

Medika Dramaga Hospital has been collaborating with BPJS Health since January 1 2014. In recent years, the dynamics of rapid changes in JKN patient regulations have had a significant impact on participant and hospital services. On average, in outpatient care, there was an increase in claims in 2018 of around 2%, while in inpatient care the average increase was around 34%. There are five most common diagnoses at Medika Dramaga Hospital and these diagnoses have *clinical pathways* . In 2018, four out of five diagnoses, as the number of patients increased, also saw an increase in the average margin *loss* per patient. Meanwhile, in *tuberculosis diagnosis* , although there has been an increase in the number of patients, the *loss margin* is lower than in 2017. There is a trend of increasing *loss* in inpatient JKN patients and demands to maintain the quality of patient services, so since 2016 RSMD has created several *Clinical Pathways* aimed at diagnosis by the number of cases a lot and the potential for losses, with the hope of maintaining service quality without ignoring cost control aspects.

Clinical Pathways is a *casemix system Diagnostic Related Group* (DRG) and INA CBGs, consisting of coding of diseases and procedures (ICD 10 and ICD 9-CM) and cost calculations. Implementation of *Clinical Pathways* is related to *Clinical Governance* to maintain and improve the quality of service at predictable and affordable costs. The variance variable in *Clinical Pathways* can be used as a tool (*entry point*) to carry out medical and management audits for both the first and second levels as well as to maintain and improve the quality of service.

Dumaris (2016) shows the total tariff difference is IDR 135,871,933 or 25.7% of the hospital tariff. This positive tariff difference is very good for the hospital and can be used

to improve services and develop the hospital. Chronic disease drug claims outside of INA-CBG's package rates add to the positive difference. Management implements cost efficiency efforts from the planning process to evaluation, while still prioritizing quality, accelerating the preparation and implementation of *clinical pathways* so that services are more standardized.

In the aspect of improving the quality and quality of service, the increasing number of patients presents new challenges for hospitals. A study states that the increase in participants and access to health services causes services to be less than optimal, this is shown by patient dissatisfaction in the era of National Health Insurance (Trisnawati *et al.* , 2015). Factors that determine service quality based on the customer's perspective include tangibles , *reliability, responsiveness, assurance,* and *empathy* (Parasuraman *et al.* , 1988; Jacobis, 2013 ; Alwi, 2018) .

In the *clinical pathways cost aspect,* the management of a disease is estimated from a summary of patient management starting from *assessment* and consultation, accommodation, supporting examinations, drugs, and medical intervention management. A *clinical pathway* is useful for service, education and research in hospitals because it can provide information on costs, quality of service, ICD 10 and ICD 9 CM coding, *mixed cases* , and individual and team performance (Firmanda, 2012). The description above explains how *clinical pathways* are implemented in order to maintain quality services with various limitations at Medika Dramaga Hospital. Thus, research was conducted to determine the influence of service quality, financing, and compliance on the performance of *clinical pathways* at the Medika Dramaga Hospital, Bogor.

LITERATURE REVIEW
Clinical Pathways
Clinical pathways is an integrated service planning concept that summarizes every step given to patients based on evidence-based medical and nursing care standards with measurable results and within a certain time period while in the hospital (Firmanda, 2007). CP is a description of beneficial practices for patients with a particular diagnosis that uses prospectively defined resources to minimize costs while taking into account research and practice guidelines (Mosby, 2009). Feuth and Claes (2008) stated that the four main components in CP are time frame, care category, outcome criteria, and recording of variants. CP is expected to reduce costs by reducing LOS, and still maintain service quality (Djasri, 2006).

Service quality
Service quality is the company's effort to provide services that are appropriate and can fulfill consumer desires (Lewis and Mitchel, 1990; Dotchin and Oakland, 1994). *Three-factor theory* analysis research (Qarari *et.al.* , 2018) concluded that as one of the indicators for determining service quality, *the basic factors* are understanding patient needs, easy to contact, two-way communication, patient visit schedule and speed of response. Quality factors consist of *tangible, reliability, responsiveness, assurance and empathy aspects* (Kalaja *et al.,* 2016) .

Financing
In general, payment systems for hospital services can be according to the bill, according to the bill with special discounts, *diagnostic related groups,* capitation , per case, *per diem, bed leasing, performance based incentives,* and *global budget* (Kongstvedt, 1996). In Indonesia, two payment methods are commonly used, namely system retrospective and prospective. A retrospective payment system means that the amount of fees that the patient must pay is determined after the service is provided , while a prospective payment system is determined before the service. The prospective financing system encourages financial incentives for health facilities to do things that are medically necessary and reduces *the*

Length of Stay (LOS). This mechanism allows excessive use of health facilities to be prevented, but can risk reducing the quality of services (Hendrartini, 2010).

Clinical Pathways Compliance .

Compliance is a person's awareness of being willing to obey all social rules and norms. Awareness means that someone voluntarily obeys all regulations, is aware of their duties, and carries out their responsibilities without coercion (Hasibuan, 2002). Assessment of monitoring and evaluation of *clinical pathways compliance* one of which is using the *Integrated Care Pathways Appraisal Tools* (ICPAT) method, introduced by Whittle (2009) consisting of 6 assessment dimensions, namely identification of *clinical pathways forms* , documentation, development process, implementation process, maintenance of ICP, and the role of the organization. Based on the results of the theoretical exploration, a framework of thought was prepared as follows:
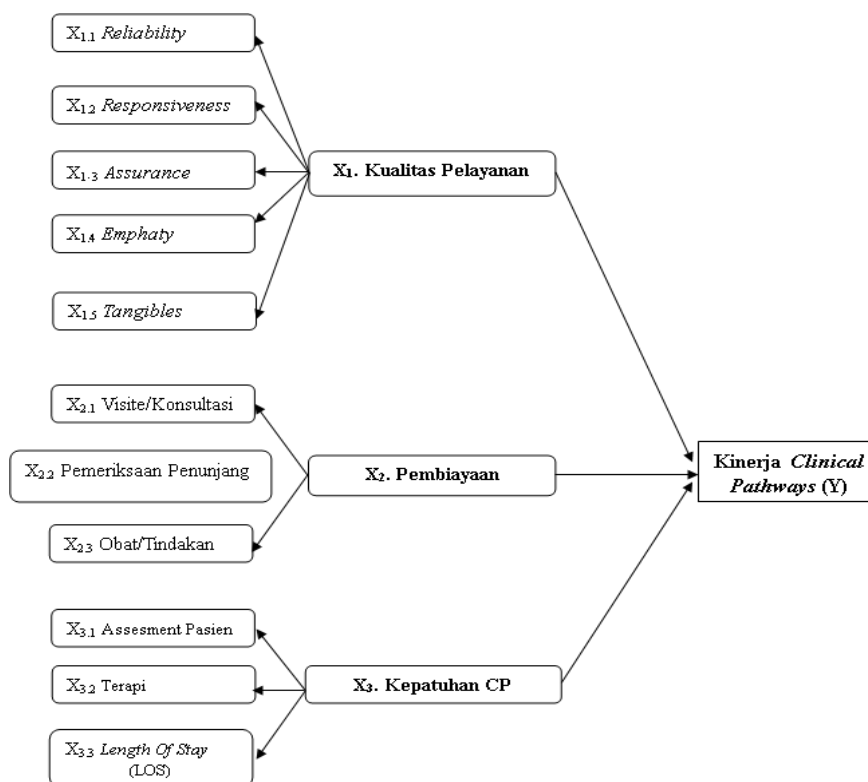

Figure 1 . Variable Relationship Diagram

Based on the literature review above, the following research hypothesis can be formulated :

H1   : there is a positive influence from the service quality variable (X1) on performance a

clinical pathways at Medika Dramaga Hospital

H2   : there is a positive influence of the financing variable (X2) on *clinical performance pathways* at Medika Dramaga Hospital

H3 : there is a positive influence from the operational implementation compliance variable (X3)

on the satisfaction of inpatients at Medika Dramaga Hospital

METHOD

and secondary data . Primary data was taken *cross-sectionally* , obtained from questionnaire answers by inpatient JKN patient respondents. The questionnaire contains

statements regarding service quality variables. Quantitative data processing uses a Likert scale where each question/statement shows the attitude of an object that can be measured. The response to each object is given a score, namely very dissatisfied = 1; dissatisfied= 2; quite satisfied= 3; satisfied= 4; very satisfied = 5.

Secondary data was obtained from existing sources, this research data is in the form of a summary of questionnaires assessing service quality and patient satisfaction, data on financing for JKN inpatients, and the results of evaluating *clinical pathways compliance* from medical record data. Supporting research data is in the form of previous research data , literature references, journals, laws, and articles sourced from books or the internet through library research .

The research was conducted at the Medika Dramaga Hospital, Bogor. The sampling technique is *non-probability sampling* with *purposive sampling* . The sample criteria are JKN insurance patients diagnosed with *dengue fever* , *tuberculosis* , PEB in pregnancy with CS, BPH with TURP, and hernia with herniorrhoea *,* as well as inpatient cases for the discharge period 1 August 2019 – 30 September 2019. The total population is 4508 patients, with using the Slovin formula with an error tolerance level of 10% so that the sample size is 100 patients (rounded result 94.3). The data analysis technique used is *Partial Least Square* (PLS), which is a method for answering the problem of measuring the satisfaction index because it does not require strict assumptions (Ghazali, 2008).

RESULTS
Secondary Data

The description of the data obtained includes monthly summary reports regarding patient satisfaction with service quality, data on inpatient financing, and compliance with *clinical pathways* . The service quality variable (X_1) consists of:

a) Dimension $X_{1.1}$ (*responsiveness*)
b) Dimension $X_{1.2}$ (*reliability*)
c) Dimensions $X_{1.3}$ (*assurance*)
d) Dimensions $X_{1.4}$ (*empathy*)
e) Dimensions $X_{1..5}$ (*tangibles*)

For the financing variable (X_2) it can be seen from the details of the patient's inpatient costs into 3 major components which on average take up the largest portion of financing for inpatients, namely:

a) Dimension $X_{2.1}$ (Visite/Consultation)
b) Dimension $X_{2.2}$ (Supporting Inspection)
c) Dimension $X_{2.3}$ (Medicines and Actions)

clinical pathways compliance variable (X_3), three things were taken that had the greatest influence on management of inpatient services, namely:

a) Dimension $X_{3.1}$ Patient Assessment
b) Dimension $X_{3.2}$ Therapy
c) Dimensions $X_{3.3}$ *Length Of Stay* (LOS)

Data was taken in the period 1 January 2019 to 30 September 2019, from 100 inpatients at Medika Dramaga Hospital . In the service quality variable (X_1) shows the distribution of the number of patients who responded as many as 100 people, consisting of 19 patients with class I rights, 23 patients with class 2 rights and 58 patients with class 3 rights . Based on the financing side (X_2) of the 9 months of services taken, the average aspect of doctor visits or consultations takes up 11% of the financing portion, while supporting examinations take up 11%, and medicines and procedures take up the largest portion, namely 39%. The remainder is another financing component consisting of accommodation, equipment rental and other costs . **Table 1** shows data on inpatient financing components .

In the compliance variable, the average compliance aspect of *clinical pathways was taken* . Of the 3 aspects assessed, the highest compliance was medical assessment at 98.57%, followed by therapy at 97% and the lowest was *Length of Stay* or length of stay at 64 .8%.

Table 2 shows compliance with the implementation of *clinical pathways* at Medika Dramaga Hospital .

Table 1. Data on Inpatient Financing Components

Month	Factors & Achievement Results		
	$X_{2.1}$ Visit/Consultation	$X_{2.2}$ Supporting Examinations	$X_{2.3}$ Drugs & Actions
January	16%	15%	27%
February	12%	11%	36%
March	8%	8%	48%
April	8%	9%	48%
May	9%	12%	44%
June	15%	15%	27%
July	15%	15%	27%
August	7%	6%	50%
September	9%	7%	46%
Average	11%	11%	39%

Source: processed data (2019)

Table 2. Compliance with *Clinical Pathways* Implementation

Month	Dimensions		
	$X_{3.1}$ Medical Assessment	$X_{3.2}$ Therapy	$X_{3.3}$ LOS
January	96.97%	100%	81.82%
February	93.33%	100%	66.67%
March	98.48%	92.42%	65.15%
April	100%	100%	71%
May	98%	93%	57%
June	100%	97%	69%
July	100%	100%	47%
August	100%	94%	62%
September	100%	92.20%	63.64%
Total	98.57%	97%	64.80%

Source: processed data (2019)

Primary data

The description of the data obtained in this research is data from a questionnaire. The questionnaire contains several questions or statements based on the operational definition of each dimension. In this research there is one service quality variable where there are 5 dimensions and each dimension has 10 indicators, with a rating scale of 1-5:

a) Variable $X_{1.1}$ (*responsiveness*)
b) Variable $X_{1.2}$ (*reliability*)
c) Variable $X_{1.3}$ (*assurance*)
d) Variable $X_{1.4}$ (*empathy*)
e) Variable $X_{1..5}$ (*tangibles*)

The total number of respondents was 100 people. The number of male respondents was 33% while the number of female respondents was 67%. Based on the characteristics of the patient's age, the majority were 26-45 years old at 43%, 39% at 0-25 years old and 18% at >45 years old. The smallest age is 0 years and the largest age is 75 years. Based on the respondent's education level, the respondents with the highest amount of education were SMU/SMA with 39%, followed by SD 21%, SMP 20%, D3/S1 17%, no education 2% and Masters 1 %. Based on treatment class rights, the largest number of respondents

were respondents with class III rights at 66%, followed by class II rights at 23% and class I at 11%.

Validity testing on primary data is carried out to test whether the measuring instrument or questionnaire used is valid or invalid using *product moment correlation* . Validity testing in this research was carried out using *the one shot method* where the questionnaire was given once to respondents and then the data was analyzed. If a question is declared valid then it is used for further discussion and if the question is invalid the question is ignored or discarded . Decision making on whether an attribute is valid or not is based on the calculated r value compared with the r-table value or probability value *(p-value*). An attribute is declared valid if the correlation coefficient (r-value) > r-table or *p-value* < 0.05. The r-table for n=30 (df=28) is 0.361. Validity test results **Table 3** shows that all indicators are valid so that these indicators can be used for research .

Table 3. Service Quality Validity Test

Variable	Indicator	r-count	r-table	Information
X1. *Responsiveness*	X1.01	0.895	0.361	Valid
	X1.02	0.669	0.361	Valid
	X1.03	0.668	0.361	Valid
	X1.04	0.781	0.361	Valid
	X1.05	0.879	0.361	Valid
	X1.06	0.859	0.361	Valid
	X1.07	0.607	0.361	Valid
	X1.08	0.701	0.361	Valid
	X1.09	0.568	0.361	Valid
	X1.10	0.515	0.361	Valid
X2. *Reliability*	X2.01	0.599	0.361	Valid
	X2.02	0.685	0.361	Valid
	X2.03	0.612	0.361	Valid
	X2.04	0.621	0.361	Valid
	X2.05	0.559	0.361	Valid
	X2.06	0.749	0.361	Valid
	X2.07	0.749	0.361	Valid
	X2.08	0.795	0.361	Valid
	X2.09	0.712	0.361	Valid
	X2.10	0.548	0.361	Valid
X3. *Assurance*	X3.01	0.705	0.361	Valid
	X3.02	0.731	0.361	Valid
	X3.03	0.781	0.361	Valid
	X3.04	0.645	0.361	Valid
	X3.05	0.664	0.361	Valid
	X3.06	0.692	0.361	Valid
	X3.07	0.812	0.361	Valid
	X3.08	0.559	0.361	Valid
	X3.09	0.714	0.361	Valid
	X3.10	0.752	0.361	Valid
X4. *Empathy*	X4.01	0.789	0.361	Valid
	X4.02	0.773	0.361	Valid
	X4.03	0.815	0.361	Valid
	X4.04	0.851	0.361	Valid

	X4.05	0.812	0.361	Valid
	X4.06	0.793	0.361	Valid
	X4.07	0.873	0.361	Valid
	X4.08	0.855	0.361	Valid
	X4.09	0.790	0.361	Valid
	X4.10	0.802	0.361	Valid
X5. *Tangibles*	X5.01	0.763	0.361	Valid
	X5.02	0.653	0.361	Valid
	X5.03	0.705	0.361	Valid
	X5.04	0.712	0.361	Valid
	X5.05	0.735	0.361	Valid
	X5.06	0.701	0.361	Valid
	X5.07	0.497	0.361	Valid
	X5.08	0.634	0.361	Valid
	X5.09	0.814	0.361	Valid
	X5.10	0.809	0.361	Valid

Source: processed data (2019)

The reliability test used in this research was using SPSS facilities, namely the *Cronbach Alpha statistical test* . **Table 4** shows that the results of reliability testing for all indicators on the dimensions used in the research are acceptable, as well as for the entire measurement level in accordance with what Ghozali (2008) stated that a construct or variable is declared *reliable if the Cronbach alpha* value is > 0.60.

Table 4. Overall Reliability Test

Variable	*Cronbarch's Alpha*	Indicator	Information
Responsiveness	0.829	10	Reliable
Reliability	0.847	10	Reliable
Assurance	0.883	10	Reliable
Empathy	0.942	10	Reliable
Tangibles	0.866	10	Reliable

Source: processed data (2019)

Evaluation of the CFA model on primary data obtained from questionnaires was carried out using the PLS method approach through an iterative process of measurement model parameters, namely convergent *validity* , *composite reliability* and *Cronbach's alpha* . Indicator reliability is reflected in the *loading factor value* which reflects the strength of the interrelation between the construct and its indicators. In this research, a *loading factor limit of* 0.5 was used, *loading factor values* of less than 0.5 were excluded from the model because they had low *convergent validity values (Ghozali* , 2008). The initial second order CFA model found that the X5.07 indicator had *a loading factor* <0.5, so this indicator was removed from the model (**Figure 2**).
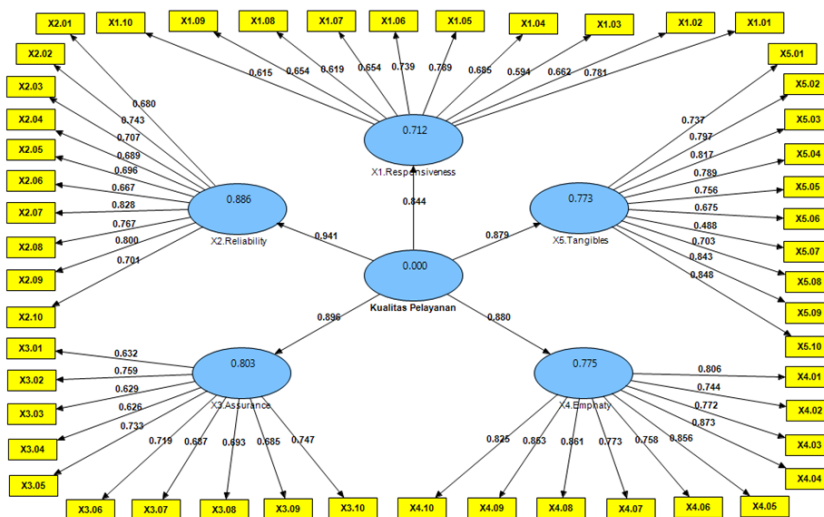
Figure 2 . Initial *Second Order* CFA Model on Primary Data

After removing several indicators, the final model in **Figure 3 was obtained** which met the requirements for convergent validity, reliability and discriminant validity. Apart from that, the AVE values for *second orders* have met *convergent validity* , namely all AVE values are above 0.5 (**Table 4**). The second test, namely *composite reliability* and *Cronbach alpha,* can be concluded that each *second order* and *first order* construct has a *composite reliability* and *Cronbach alpha value* > 0.7 (Ghozali , 2008). The results of *the composite reliability* and *Cronbach alpha* tests can be seen in **Table 5.**

Table 5. Overall Reliability Test

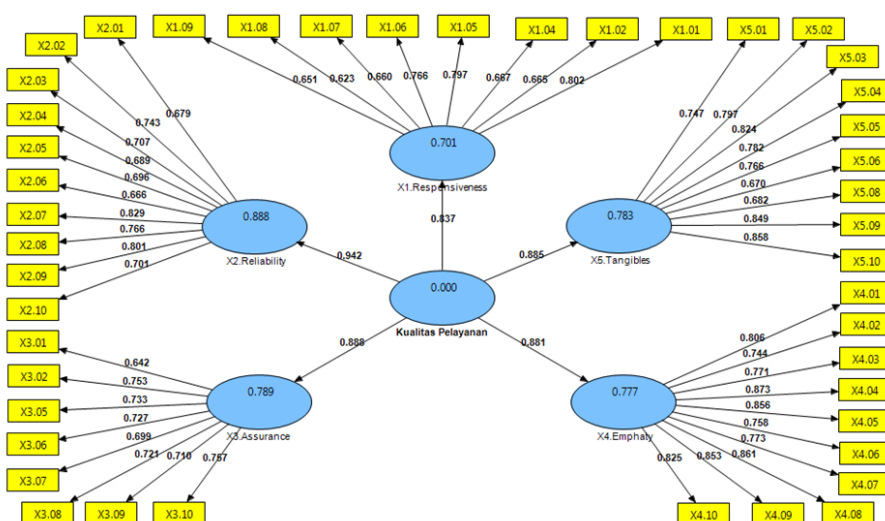|	AVE	Composite Reliability	Cronbach's Alpha
X1.1Responsiveness	0.500	0.888	0.855
X1.2Reliability	0.532	0.919	0.901
X1.3Assurance	0.516	0.895	0.866
X1.4Empathy	0.661	0.951	0.943
X1.5Tangibles	0.605	0.932	0.917

Source: processed data (2019)

Figure 3. Final *Second Order* CFA Model for Primary Data

The next step is to look at *the bootstrapping results* to determine the significance value of each *loading factor* . **Figure 4** shows that all *loading factors* in *the second order* are significant at the 5% level, this is indicated by the statistical T value being more than the T table

(1.96). Likewise, *the second order* construct of service quality is significantly reflected by the dimensions of *responsiveness, reliability, assurance, empathy,* and *tangibles* with a statistical T value of more than 1.96 (**Table 6**).
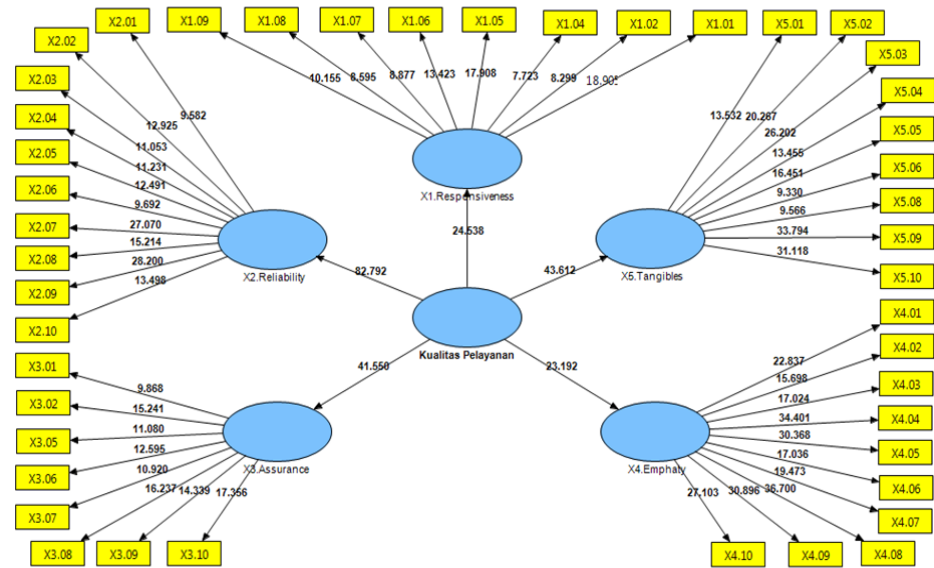

Figure 4. T-Calculated Value of the Final *Second Order* CFA Model for Primary Data

Table 6. *Factor Loading* and T-Calculated Values for Each Factor

	Loading Factor	T Statistics
Service Quality -> X1.1 *Responsiveness*	0.837	24,538
Service Quality -> X1.2 *Reliability*	0.942	82,792
Service Quality -> X1.3 *Assurance*	0.888	41,550
Service Quality -> X1.4 *Emphaty*	0.881	23,192
Quality of Service -> X1.5 *Tangibles*	0.885	43,612

Source: processed data (2019)

factor loading value is the *reliability factor* of 0.942 compared to other factors. This shows that the *reliability factor* is a more dominant factor compared to other factors in measuring service quality based on the implementation *of clinical pathways* . The *Reliability* Factor is measured by indicators $X_{1.2.1}$, $X_{1.2.2}$, $X_{1.2.3}$, $X_{1.2.4}$, __ $X_{1.2.10}$ with a dominant factor loading *value* (factor loading value > 0.8) is found at $X_{1.2.7}$ and Indicators with high *loading factors* have a higher contribution to explaining the latent construct. On the other hand, indicators with low *factor loadings* have a weak contribution to explaining the latent construct. In most references, a factor weight of 0.50 or more is considered to have validation that is strong enough to explain the latent construct (Hair *et al.,* 2010) .

Evaluation of the CFA model on secondary data using the PLS method approach. Indicator reliability is reflected in the *loading factor value* which reflects the strength of the interrelation between the construct and its indicators. In this research, the secondary data used a *loading factor limit* of 0.5, *loading factor values* of less than 0.5 were removed from the model because they had low *convergent validity values (Ghozali* , 2008). Initial *second order* CFA model **Figure 5** shows that all indicators have *a loading factor* > 0.5 .
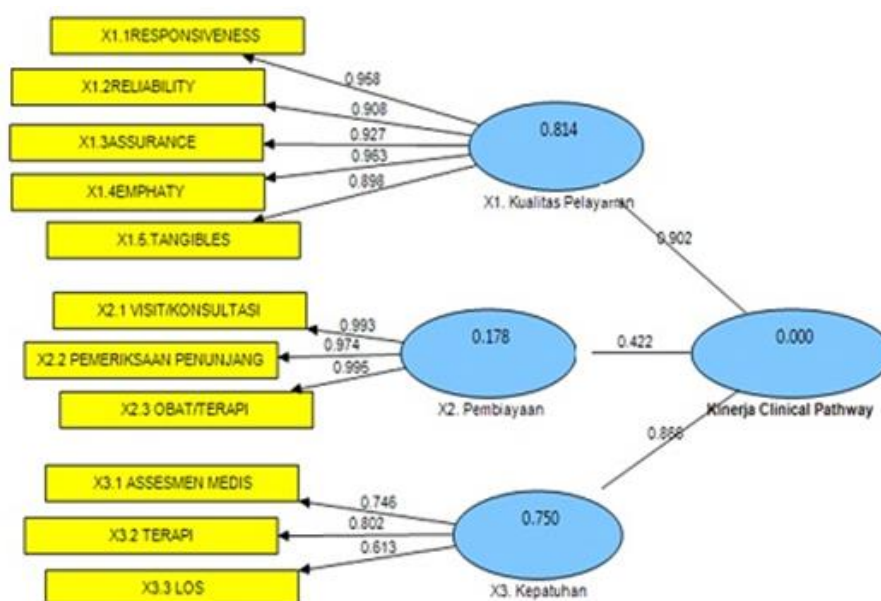
Figure 5. T-Calculated Value of the Final *Second Order* CFA Model for Primary Data

The second test, namely *composite reliability* , can be concluded that each *second order* and *first order* construct has a *composite reliability value* of more than 0.7 (Ghozali , 2008). *The composite reliability* test results can be seen in **Table 7.**

Table 7. AVE and *composite reliability values*

	AVE	Composite Reliability
X1. Service quality	0.867	0.970
X2. Financing	0.975	0.992
X3. Obedience	0.525	0.766

Source: processed data (2019)

The next step is to look at *the bootstrapping results* to determine the significance value of each *loading factor* . Figure 6 shows that all *loading factors* in *the second order* are significant at the 5% level, this is indicated by the statistical T value being more than the T table (1.96). Likewise, *the second order Clinical Pathway* Performance construct is significantly reflected by the Service Quality, Financing and Compliance dimensions with a statistical T value of more than 1.96 (**Table 8**).

Table 8. *Factor Loading* Values and T-Count for Each Factor

	Loading Factor	T Statistics
Clinical Pathway Performance -> X1. Service quality	0.902	27,441
Clinical Pathway Performance -> X2. Financing	0.422	3,126
Clinical Pathway Performance -> X3. Obedience	0.866	35,407

Source: processed data (2019)

Factor loading value is the service quality factor of 0.902 compared to other factors. This shows that the service quality factor is a more dominant factor than other factors in measuring *clinical pathway performance* . Service quality factors measured by the dominant indicator, namely $X_{1.4}$ *Empathy* is 0.963 . Indicators with high *loading factors* have a higher contribution to explaining the latent construct. On the other hand, indicators with low *factor loadings* have a weak contribution to explaining the latent construct. In most references a factor weight of 0.50 or more is considered to have validation that is strong enough to explain the latent construct (Hair *et al .,* 2010).
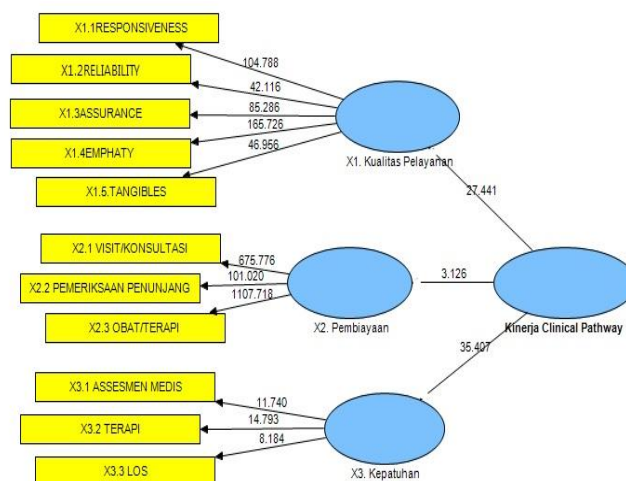
Figure 6. T -Calculated Value of *Second Order CFA* Model Secondary Data

Data Interpretation

The research results illustrate the implementation of *clinical pathways* on the quality of health services, especially for DHF, TBC, SC, HIL and BPH patients at Medika Dramaga Hospital, Bogor. This is in line with the theory presented by Muninjaya (2011) that the quality of health services can be assessed based on the outcomes of the health service system. The output of the health service system is influenced by three components, namely *input* , process and environment. In *climical pathways,* input can be in the form of facilities and facilities owned by the hospital, processes are patient health service activities, and the environment can be in the form of internal and external factors that influence during patient care .

In *clinical pathways,* there are clinical governance efforts to ensure improvement in service quality and guarantee service quality by building a good clinical service environment in a health service organization. The effectiveness of clinical activities is one way of implementing evidence-based guidelines that are carried out effectively. The implementation of *clinical pathways* aims to determine the expected standards regarding the length of treatment and the use of clinical examinations and other clinical procedures, provide roles to all staff involved in the service and their role in the process, provide a framework for analyzing service process data so that we can find out how often a patient does not receive services according to standards, reducing the burden of clinical documentation (Ministry of Health of the Republic of Indonesia, 2010).

Clinical pathway is an integrated plan that summarizes every step that will be given to patients, this can be used as a strategy in efforts to maintain service quality. Through the implementation of *clinical pathways,* service quality is maintained in terms of quality and financing. It was stated that service quality factors determine patient perceptions of the services provided by the hospital .

In the aspect of service quality factors whose data is obtained through primary questionnaire data, the *reliability factor* is the more dominant factor in measuring service quality based on the implementation *of clinical pathways* . *Reliability* factor $_{with}$ dominant $_{loading}$*factor* values $_{at}$ X $_{1.2.7}$ and _ _ administration of medication and how to consume it."

From previous research, among others, Supartiningsih (2017) stated that reliability *and* assurance *factors* have quite a significant influence on the quality of outpatient services at Sarila Husada Hospital, Sragen. Similar to this research which took a sample of inpatients, the greatest contribution to the quality of service was obtained from questionnaire data (primary data), so the reliability factor *at* Medika Dramaga Hospital also had the greatest contribution to the quality of inpatient services.

Secondary data processing determines that the biggest contribution in assessing the performance *of clinical pathways* is the service quality factor. The quality of service increases as the quality of service increases, this is one of the main goals of implementing

clinical pathways . The biggest contribution to the implementation of *clinical pathways* at the Medika Dramaga Hospital in Bogor is the aspect of service quality and implementation compliance. Improving the quality of services is carried out by providing services efficiently and effectively in accordance with professional standards, service standards, the use of appropriate technology and research results to develop health/nursing services so that optimal health is achieved (Nursalam, 2011).

Not forgetting that the most crucial aspect of service is empathy, where hospital staff carefully treat patients the way they want to be treated and apply this empathy in the service's Standard Operating Procedures (SOP). Then outline these steps in *the Clinical Pathways* , including the initial assessment process, further assessment, consultation, providing care from doctors, nurses and other PPA.

Clinical pathways have a role in controlling inpatient budgets because all components in *clinical pathways* can be converted into costs. Through *the clinical pathway,* the Hospital Director can see the transparency of the services provided to patients, including the aspect of controlling services, both implementation and quality, as well as service costs. Hospital management can process existing *clinical pathways data* and process it to become the basis for policy in managing services, especially JKN patients, so that hospitals can continue to provide quality services and control costs or resources used .

Research limitations . This research analyzes the dominance of factors in the process of implementing *clinical pathways* , including aspects of service quality, budget and compliance, but has several limitations, namely not exploring in detail the aspects of service quality that are most influential or affected by *clinical pathways* . Next, in-depth research can be carried out on service quality factors so that it is known which factors are still lacking so that improvements can be made. Apart from that, not all aspects of the budget in patient care are presented in this research, seeing the weak relationship between *clinical pathways* budget costs and *clinical pathways* performance , indicating that there are still other cost indicators (*co-founding*) that have more influence on *clinical pathways performance.*

CONCLUSION

Based on the results of the research analysis, it can be concluded that the primary data results from the questionnaire show the dominance of the reliability factor *in* the service quality variable. The reliability factor here consists of the ability and availability of health workers, as well as hospital facilities to serve patients optimally . Secondary data processing consisting of service quality, financing and *clinical pathways compliance variables* illustrates that the greatest dominance is the service quality variable. However, unlike secondary data, the dominant service quality factor is empathy *(empathy)* . From the results of primary and secondary data, service quality, which is the goal of quality service in clinical pathways, with 5 factors, is proven to have a dominant influence on clinical pathways performance . The financing variable has the lowest contribution to *clinical pathways performance* . Consultation factors, supporting examinations and drugs and procedures are not factors that can directly measure the performance *of clinical pathways* , there are other financing factors that have a greater influence on the performance of *clinical pathways* . Average implementation compliance at Medika Dramaga Hospital is above 80%, but there are several *clinical pathways components* that have low compliance rates.

From the research results of questionnaire data filled out by JKN inpatients, it is clear that patients give good assessments of the reliability aspect of Medika Dramaga Hospital, on the other hand there are 4 other factors that must be increased in value so that the quality of hospital services increases along with patient satisfaction. Quality of service which contributes dominantly to the performance of clinical pathways must be the focus of management through regular and periodic evaluation and audit of clinical pathways and then followed up in the form of revisions or updates to existing clinical pathways. The relationship between financing which is not significant on the performance of clinical pathways can be further investigated regarding other factors which have a significant

influence, because the basis for creating clinical pathways is to control the quality and cost aspects of health services.

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